Departmental Findings of Fact and Order Air Emission License

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Performance Product Painting, Inc. of Auburn, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with the preparation and surface coating of various metal, wood, plastic, and cloth products. Performance Product Painting, Inc. has requested to reduce license allowed VOC (Volatile Organic Compound) emissions to 25 tons per year from 39.9 tons per year.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, <u>% sulfur</u>
Oven #2	1.5	16.6	LPG
Oven #3	1.5	16.6	LPG

Performance Product Painting, Inc. has additional fuel burning insignificant activities, including fuel burning equipment below the 1 MMBtu/hr licensing threshold. Two LPG fired air makeup units above 1 MMBtu/hr are also considered insignificant since they do not vent outside.

Departmental Findings of Fact and Order Air Emission License

Process Equipment

2

		Pollution Control
Equipment	Production Rate	Equipment
Spray Booths 1, 2, 3, 4,	Variable	Particulate filters,
5, and 6		HVLP spray guns
Cloth Machine	Variable	None

Performance Product Painting, Inc. has additional process insignificant activities. The vents in the chemical storage area where coatings and solvents are stored are categorically exempt since the stored containers are closed (06-096 CMR 115, Appendix B, Section (A)(31), *Major and Minor Source Air Emission License Regulation*, last updated December 24, 2005). The powder coating spray booths and sandblast area are insignificant since they are not vented to the outside. The LPG tanks are insignificant due to size (below 40,000 gallons) per 06-096 CMR 115, Appendix B, Section (B)(8). The batch solvent distillation is insignificant due to capacity (less than 55 gallons batch capacity) per 06-096 CMR 115, Appendix B, Section (B)(13).

C. Application Classification

The application for Performance Product Painting, Inc. is considered to be a renewal and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). The renewal includes clarifications to the pieces of equipment that need to be included on the license and those that are considered insignificant. With the facility VOC and HAP limits, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;

Departmental Findings of Fact and Order Air Emission License

- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

Facility Description

Performance Products Painting, Inc. coats a wide variety of metal, fabric, leather, and plastic components at the facility. The production areas within the facility include: a dip tank production area with iron phosphate batch dip tanks; two powder paint areas where the items to be coated are given a charge, sprayed with powder coating, and put through an oven; a spray paint production area with spray booths; a sand blasting area which includes an oxide blast room and a sand blast room (neither vent outside); a preparation area; a packing and quality assurance area; and a storage area.

The processes used in the production areas at any given time are job specific. The jobs can vary from coating fencing and car chassis to applying coating to aerospace parts.

B. Ovens #2 and #3

Ovens #2 and #3 are parts drying ovens each rated at 1.5 MMBtu/hr capacity firing LPG with a firing rate of 16.6 gallons/hour. Oven #2, installed in 1996, is a convection oven and is located in one of the powder paint areas. Oven #3, installed in 1999, is an infrared oven and is located in the other powder paint area.

The BPT emission limits for each of the propane ovens are based on the following:

PM/PM₁₀ – 0.6 lb/1000 gal, AP-42 Table 1.5-1 (dated 10/96); 0.01 lb/hr SO₂ –0.1*S lb/1000 gal, AP-42 Table 1.5-1 (dated 10/96); negl. lb/hr NOx – 19 lb/1000 gal, AP-42 Table 1.5-1 (dated 10/96); 0.3 lb/hr CO – 3.2 lb/1000 gal, AP-42 Table 1.5-1 (dated 10/96); 0.05 lb/hr VOC – 0.5 lb/1000 gal, AP-42 Table 1.5-1 (dated 10/96); 0.01 lb/hr Opacity – Visible emissions shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1) six (6) minute block average in a 3 hour period.

C. Spray Booths 1-6

The six spray booths are each controlled by particulate filters and the use of HVLP (high volume, low pressure) spray guns. All of the spray booths are located in the spray paint production area. Spray booths 1 and 2 were installed in

Departmental Findings of Fact and Order Air Emission License

1987. Spray booth 3 was installed in 1988. Spray booths 4, 5, and 6 were installed in 1995.

Emissions from the spray booths exhaust through the paint booth stacks. Airdrying emissions are exhausted as fugitive emissions through the production area ventilation system.

BPT for the paint spray booths is the minimization of overspray with efficient HVLP spray guns and the use of filters to control PM emissions. VOC emissions from spray painting shall be included in the 25.0 tons/year VOC facility emissions, based on a 12 month rolling total.

D. Cloth Machine

The cloth coating machine was installed in 1989 to coat a variety of cloths and fabrics; however, this process is currently not used often. The cloth coating machine is located in the dip tank production area.

VOC emissions from cloth coating shall be included in the 25.0 tons/year facility VOC emissions, based on a 12 month rolling total.

E. Adhesives

Performance Product Painting, Inc. occasionally applies adhesive coatings used to adhere rubber to metal. Any VOC emissions from the adhesives shall be included in the 25.0 tons/year facility VOC emissions, based on a 12 month rolling total.

F. Chapter 129

Performance Product Painting, Inc. is subject to 06-096 CMR 129, *Surface Coating* (last amended March 3, 1998), which sets forth different VOC content requirements for the surface coating categories of: cans, fabrics, vinyl, metal furniture, flatwood paneling, and miscellaneous metal parts and products.

Due to the job shop nature of the business, 06-096 CMR 129, Section 3 is applicable: "If more than one surface coating category and emission limitation applies to a specific coating operation, then the least stringent emission limitation shall control." Of the items Performance Product Painting, Inc. coats – fabric, vinyl, metal furniture, and miscellaneous metal parts – the least stringent emission limitation is for miscellaneous metal parts. Performance Product Painting, Inc. shall meet the following emission limitations, per 06-096 CMR 129, Section (3)(F):

Departmental Findings of Fact and Order Air Emission License

<u>Category</u>	<u>kg/l</u>	<u>lb/gal</u>
Clear Coating	0.52	4.3
Steel Pail and Drum Interior	0.52	4.3
Air-dried Coating	0.42	3.5
Extreme Performance Coating	0.42	3.5
All Other Coatings	0.36	3.0

5

As stated in 06-096 CMR 129, Section 3(G), Performance Product Painting, Inc. may use, in aggregate, up to 50 gallons of coatings that exceed the emission limitations in the table above for any 12 consecutive months, provided records are maintained demonstrating compliance with the 50 gallon limit.

Performance Product Painting, Inc. has chosen to demonstrate compliance with 06-096 CMR 129 using the daily-weighted average limitation. If the facility decides to demonstrate compliance through either the low solvent content coating technology or add-on pollution control devices options, an application shall first be submitted and approved by the Department.

Performance Product Painting, Inc. shall meet all applicable requirements of 06-096 CMR 129, including emissions limitations, recordkeeping, and reporting.

G. HAP (Hazardous Air Pollutant) Emissions

Facility wide HAP emissions shall not exceed 9.9 tons/year of any single HAP or 24.9 tons/year of total HAPs, based on a 12 month rolling total. Records shall be maintained of the amount of coatings/paints/adhesives used and HAP content of the coatings/paints/adhesives.

H. Annual Emissions

Performance Product Painting, Inc. shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO _x	CO	VOC
Oven 2	0.04	0.04	-	1.4	0.23	0.04
Oven 3	0.04	0.04	-	1.4	0.23	0.04
Coating	-	1	1	1	-	25.0

Total TPY	0.1	0.1	-	2.8	0.46	25.0

Departmental Findings of Fact and Order Air Emission License

Annual HAP emissions shall not exceed 9.9 tons/year of any single HAP or 24.9 tons/year of total HAPs.

III.AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	Tons/Year		
PM_{10}	25		
SO_2	50		
NO_x	100		
CO	250		

Based on the total licensed facility emissions, Performance Product Painting, Inc. is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-579-71-F-R subject to the following conditions.

<u>Severability</u>. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department

Departmental Findings of Fact and Order Air Emission License

deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

Departmental Findings of Fact and Order Air Emission License

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

Departmental Findings of Fact and Order Air Emission License

[06-096 CMR 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) Ovens #2 and #3

- A. Fuel use records shall be maintained on a monthly and 12 month rolling total basis. [06-096 CMR 115, BPT]
- B. The two ovens shall fire LPG and shall each not exceed the following emissions [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Oven #2	0.01	0.01	Negl.	0.3	0.05	0.01
Oven #3	0.01	0.01	Negl.	0.3	0.05	0.01

C. Visible emissions from each of the ovens shall not exceed 10% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

Departmental
Findings of Fact and Order
Air Emission License

(17) **Spray Booths**

A. Visible emission from the painting process vents shall not exceed 5% opacity on a six minute block average basis. [06-096 CMR 115, BPT]

10

- B. Performance Product Painting, Inc. shall implement an inspection and maintenance program for optimum filter effectiveness as follows:
 - 1. Inspect spray booth filters on a weekly basis.
 - 2. Replace spray booth filters when necessary with a minimum replacement schedule of bi-monthy.

The inspection and maintenance activities shall be documented in a recordkeeping log.

(18) Total Process Emissions – VOC and HAP

a. VOC Emissions

VOC emissions from coatings, paints, and adhesives shall not exceed 25.0 tons/year, based on a 12 month rolling total. Performance Product Painting, Inc. shall maintain monthly records of the total use of water based paint, solvent based paint, and adhesives; and the solvent content of the material used. The records shall include the monthly VOC total and the 12 month rolling total. [06-096 CMR 115, BPT]

b. HAP Emissions

HAP emissions from coatings, paints, and adhesives shall not exceed 9.9 tons/year of any single HAP or 24.9 tons/year of total HAPs, based on a 12 month rolling total. Performance Product Painting, Inc. shall maintain monthly records of the total use of water based paint, solvent based paint, and adhesives; and the HAP content of the material used. The records shall include the monthly HAP total and the 12 month rolling total. [06-096 CMR 115, BPT]

(19) Surface Coating Facilities Requirements (06-096 CMR 129)

- A. Performance Product Painting, Inc. shall comply with all applicable requirements in 06-096 CMR 129.
- B. Performance Product Painting, Inc. shall not use coatings with VOCs that exceed the following limitations, with the exception listed in Condition (19)(C):

Departmental Findings of Fact and Order Air Emission License

<u>Category</u>	<u>kg/l</u>	<u>lb/gal</u>
Clear Coating	0.52	4.3
Steel Pail and Drum Interior	0.52	4.3
Air-dried Coating	0.42	3.5
Extreme Performance Coating	0.42	3.5
All Other Coatings	0.36	3.0

[06-096 CMR 129, Section (3)(F)]

- C. Performance Product Painting, Inc. may use up to 50 gallons per year in aggregate, based on a 12 month rolling total, of coatings that exceed the emission limits set for in Condition (19)(B) above, provided that Performance Product Painting, Inc. maintains records of such coatings in accordance with 06-096 CMR 129 Section 7(B)(2). [06-096 CMR 129, Section (3)(G)]
- D. Handling Storage and Disposal of Materials Containing VOC
 - 1. Vapor-tight containers shall be used for the storage of spent or fresh VOC and for the storage or disposal of cloth or paper impregnated with VOC that are used for surface preparation, clean up or coating removal. [06-096 CMR 129, Section (4)(A)]:
 - 2. Performance Product Painting, Inc. shall not use VOC solvent for cleanup operations unless equipment is used to collect the cleaning compounds and to minimize their evaporation to the atmosphere. Performance Product Painting, Inc. shall comply with the following work practice standards [06-096 CMR 129, Section (4)(B)]:
 - a. Spray gun cleaning. Performance Product Painting, Inc. shall collect all organic solvent used to clean spray guns into a normally closed container.
 - b. Line cleaning. Performance Product Painting, Inc. shall pump or drain all organic solvent used for line cleaning into a normally closed container.
 - c. Spray booth cleaning. Performance Product Painting, Inc. shall not use compounds containing more than 8.0 % by weight of VOC for cleaning spray booth components other than conveyers, continuous coaters and their enclosures, and/or metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic solvent to prepare the booth prior to applying the booth coating.
 - d. Washoff operations. Performance Product Painting, Inc. shall control emissions from washoff operations by using normally closed tanks for washoff and minimizing dripping by tilting or rotating the part to drain as much organic solvent as possible.

11

Departmental Findings of Fact and Order Air Emission License

E. Daily Weighted Average Limitation

- 1. Performance Product Painting, Inc. shall demonstrate compliance through a daily weighted average limitation. If the facility chooses to demonstrate compliance through either the low solvent content coating technology or add-on pollution control devices options, an application shall first be submitted and approved by the Department. [06-096 CMR 129]
- 2. Performance Product Painting, Inc. shall not apply during any day, coatings on that coating unit whose daily-weighted average VOC content exceeds the applicable emission limitations in condition (19)(B), as calculated in 06-096 CMR 129, Appendix A, Procedure C. Daily weighted cross-line averaging may be allowed on a case by case basis upon approval from the Department and EPA. Weekly weighted averaging may also be allowed on a case by case basis upon approval from the Department and EPA, and shall be calculated in accordance with Appendix A, Procedure C, substituting "weekly" for "daily", as appropriate. [06-096 CMR 129, Section (5)(B)]

F. Test Methods and Compliance Procedures

- 1. Performance Product Painting, Inc. shall collect and record the applicable information, and where required, perform compliance testing and demonstrate compliance by using the methods and procedures described in Appendix A, Procedures A through I, and submit a report to the Department of the results as stipulated in 06-096 CMR 129, Section 8. At least a thirty (30)-day advance notification to the Department shall precede all tests.
- 2. Performance Product Painting, Inc. shall perform additional testing and submit a report within ninety (90) days of receipt of notice from the Department if equipment operating parameters, staff inspection, air monitoring or other cause indicates to the Department that the surface coating facility may be operating out of compliance with the emission limitations.

[06-096 CMR 129, Section (6)]

G. Recordkeeping

- 1. Daily records shall be maintained on premises to document the name and identification of each coating and the mass of VOC per volume and the volume of each coating, excluding water and exempt compounds, as applied, on each coating unit, line or operation, and
- 2. Daily records shall be maintained on premises to document the daily-weighted average VOC content of all coatings, as applied, on each coating unit, line or operation calculated according to 06-096 CMR 129, Appendix A, Procedure C.

[06-096 CMR 129, Section (7)(B)(3)]

12

Departmental
Findings of Fact and Order
Air Emission License

H. Reporting

If VOCs are emitted in excess of emission limitations, Performance Product Painting, Inc. shall notify the Department in writing within thirty (30) calendar days of any evidence showing excess emissions and/or non-compliance with the daily-weighted average limitations. [06-096 CMR 129, Section (8)(B)(2)]

13

(20) Annual Emission Statement

In accordance with 06-096 CMR 137, *Emission Statements* (last amended July 6, 2004), the Performance Product Painting, Inc. shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department; or
- 2) A written emission statement containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator

Maine DEP

Bureau of Air Quality 17 State House Station

Augusta, ME 04333-0017 Phone: (207) 287-2437

The emission statement must be submitted by the date specified in 06-096 CMR 137.

(21) Air Toxics Emission Statement

If Performance Product Painting, Inc. exceeds the thresholds for HAPs listed in 06-096 CMR 137, Appendix A in an air toxics inventory year, the licensee shall report the information necessary to accurately update the State's toxic air pollutants emission inventory, in a format prescribed by the Department and containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Departmental Findings of Fact and Order Air Emission License

Attn: HAP Inventory Coordinator

Maine DEP

Bureau of Air Quality 17 State House Station

14

Augusta, ME 04333-0017 Phone: (207) 287-2437

[06-096 CMR 137]

(22) Performance Product Painting, Inc. shall notify the Department within 48 hours and submit a report to the Department on a <u>quarterly basis</u> if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF , 2008.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:

DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: <u>August 21, 2006</u> Date of application acceptance: August 21, 2006

Date filed with the Board of Environmental Protection:

This Order prepared by Kathleen E. Tarbuck, Bureau of Air Quality.